


 No internet connection star-portals.com/view/s

26

**Time Remaining: 45/45 (Minutes)****Q.1****Test 3 Work & Energy****Physics Unit Wise****A ball is dropped from a height of 10 m.**

- A) Its potential energy increases and kinetic energy decreases during the falls**
- B) The potential energy decreases and the kinetic energy increases during the fall.**
- C) Its potential energy is equal to the kinetic energy during the fall.**
- D) The potential energy and kinetic energy is maximum while it is falling.**

STAR INSTITUTE LAHORE[Click Here if Image Doesn't Load](#)**Correct Answer:**☐ A ☐ B ☐ C ☐ D**Next**



Q.2

Test 3 Work & Energy

Physics Unit Wise

How much time will be required to perform 520 J of work at the rate of 20 W?

A) 24s

B) 20 s

C) 16s

D) 26 s

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection

Time Remaining: 44/45 (Minutes)

Q.3

Test 3 Work & Energy

Physics Unit Wise

The spring will have maximum potential energy when

- A) it is pulled out B) both A) and C)
C) it is compressed D) neither A) nor C)

STAR INSTITUTE LAHORE


[Click Here if Image Doesn't Load](#)

Correct Answer:

- ☒ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection star-portals.com/view/s

26



Q.4

Test 3 Work & Energy

Physics Unit Wise

Output of a truck is 4500 J and its efficiency is 50%, input energy provided to truck is

A) 5000 J

B) 900 J

C) 9000 J

D) 500 J

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.5

Test 3 Work & Energy

Physics Unit Wise

Which of the followings is an example of work done against force of gravity?

- A) Getting up with the stairs
- B) Get down with the stairs
- C) Walking on the flat ground
- D) Dropping any object down from the top

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection star-portals.com/view/s

26



Q.6

Test 3 Work & Energy

Physics Unit Wise

What is the formula of work done?

- A) Work done = force \times displacement;
- B) Work done = force \times velocity;
- C) Work done = pressure \times displacement
- D) Work done = mass \times acceleration;


STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

[Next](#)[Back](#)

 No internet connection star-portals.com/view/s

26



Q.7

Test 3 Work & Energy

Physics Unit Wise

Due to application of 5 N force an object moves 10 meter along perpendicular direction of the force. What amount work is done?

- A) 50 Joule
C) 5 Joule

- B) 15 Joule
D) 0 Joule

STAR INSTITUTE LAHORE


[Click Here if Image Doesn't Load](#)

Correct Answer:

- ☒ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection star-portals.com/view/s

26



Q.8

Test 3 Work & Energy

Physics Unit Wise

Work is independent of:

A) Force
C) Time

B) Displacement
D) All of these

STAR INSTITUTE LAHORE


[Click Here if Image Doesn't Load](#)

Correct Answer:

☐ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection star-portals.com/view/s

26



Q.9

Test 3 Work & Energy

Physics Unit Wise

When the speed of object is halved and the mass is quadrupled then the kinetic energy is:

- A) Quartered
C) One Third

- B) Twice
D) Remain same

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

- ☒ A ☐ B ☐ C ☐ D

Next

Back



Q.10

Test 3 Work & Energy

Physics Unit Wise

A gardener pushes a lawn roller through a distance of 20m. If he applies a force of 20kg weight in a direction inclined at 60° to the ground, find the work done by him. ($g=9.8\text{m/s}^2$)

A) 400J

B) 1060J

C) 250J

D) 2514J

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.11

Test 3 Work & Energy

Physics Unit Wise

For a body moving in a circular path, the work done by the centripetal force is

- A) Negative
C) Constant

- B) Positive
D) Zero

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

- ☒ A ☐ B ☐ C ☐ D

Next

Back



Q.12

Test 3 Work & Energy

Physics Unit Wise

If a pump can lift 200 kg of water through a height of 6 m in 10 seconds, then its power is

A) 1100 watts

B) 1000 watts

C) 1300 watts

D) 1200 watts

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.13

Test 3 Work & Energy

Physics Unit Wise

A light and a heavy body have equal momenta.
Which one has greater K.E

A) The light body

B) The heavy body

C) The K.E. are equal

D) Data is incomplete

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.14

Test 3 Work & Energy

Physics Unit Wise

Two bodies of masses $2m$ and $1m$ have their K.E. in the ratio $8 : 1$, then their ratio of momenta is

A) $1 : 1$ B) $2 : 1$ C) $4 : 1$ D) $8 : 1$

STAR INSTITUTE LAHORE


[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection star-portals.com/view/s

26



Q.15

Test 3 Work & Energy

Physics Unit Wise

The decrease in the potential energy of a ball of mass 20 kg which falls from a height of 50 cm is

A) 968 J

B) 98 J

C) 1980 J

D) None of these

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.16

Test 3 Work & Energy

Physics Unit Wise

A body moves a distance of 10 m along a straight line under the action of a force of 5 N. If the work done is 25 joules, the angle which the force makes with the direction of motion of the body

A) 0° B) 30° C) 60° D) 90°

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.17

Test 3 Work & Energy

Physics Unit Wise

A force $F = (5\hat{i} + 3\hat{j})$ newton is applied over a particle which displaces it from its origin to the point $r = (2\hat{i} + 1\hat{j})$ metres. The work done on the particle is

A) -7 joules

B) + 13 joules

C) + 7 joules

D) + 11 joules

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.18

Test 3 Work & Energy

Physics Unit Wise

In an explosion a body breaks up into two pieces of unequal masses. In this

- A) Both parts will have numerically equal momentum
- B) Lighter part will have more momentum
- C) Heavier part will have more momentum
- D) Both parts will have equal kinetic energy

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.19

Test 3 Work & Energy

Physics Unit Wise

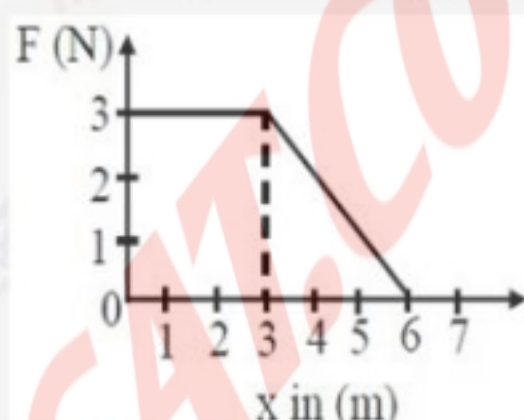
A force F acting on an object varies with distance x as shown here. The force is in N and x in m. The work done by the force in moving the object from $x = 0$ to $x = 6$ m is

A) 18.0 J

B) 13.5 J

C) 4.5 J

D) 9.0 J



STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☐ A ☐ B ☐ C ☐ D

Next

Back



Q.20

Test 3 Work & Energy

Physics Unit Wise

What happens to the kinetic energy of a moving object if the net work done is positive?

- A) The kinetic energy increases
- B) The kinetic energy decreases
- C) The kinetic energy remains the same
- D) The kinetic energy is zero

STAR INSTITUTE LAHORE


[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection star-portals.com/view/s

26



Q.21

Test 3 Work & Energy

Physics Unit Wise

In the presence of air friction, the relation for free falling body is

A) $mgh = \frac{1}{2}mv^2 - fh$

B) $mgh = fh - \frac{1}{2}mv^2$

C) $mgh = \frac{1}{2}mv^2 + fh$

D) $mgh = fh + \frac{1}{2}mv^2$

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☐ A ☐ B ☐ C ☐ D

Next

Back



Q.22

Test 3 Work & Energy

Physics Unit Wise

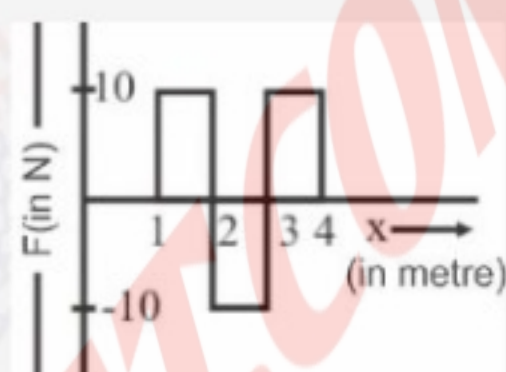
Fig. shows F-x graph of a particle. The work done is

A) 0 J

B) 20 J

C) 10 J

D) 30 J



STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.23

Test 3 Work & Energy

Physics Unit Wise

Mathematical form of work energy principle is

A) $Fd = \frac{1}{2}mv_i^2 - \frac{1}{2}mv_f^2$

B) $Fd = \frac{1}{2}mv_f^2 - \frac{1}{2}mv_i^2$

C) $Fd = \frac{1}{2}mv_f^2 - \frac{1}{2}mv_i^2$

D) $Fd = \frac{1}{2}mv_f^2 + \frac{1}{2}mv_i^2$

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.24

Test 3 Work & Energy

Physics Unit Wise

If momentum is increased by two times K.E increases by

A) Two times

B) four times

C) 3 times

D) Remains

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.25

Test 3 Work & Energy

Physics Unit Wise

A particle moves with $\vec{v} = -3\hat{j} + 5\hat{i} + 6\hat{k} \text{ ms}^{-1}$ under $\vec{F} = -10\hat{i} + 10\hat{j} + 20\hat{k} \text{ N}$. the power applied

A) 200 Js^{-1} B) 40 Js^{-1} C) 170 Js^{-1} D) 140 Js^{-1}

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back



Q.26

Test 3 Work & Energy

Physics Unit Wise

On an object the work done does not depend upon:

- A) Displacement
- B) Angle between force and displacement
- C) Force applied
- D) Initial velocity of an object

STAR INSTITUTE LAHORE


[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection star-portals.com/view/s

26



Q.27

Test 3 Work & Energy

Physics Unit Wise

One mega watt hour is equal to

A) $3.6 \times 10^6 \text{ J}$ B) $3.6 \times 10^8 \text{ J}$ C) $3.6 \times 10^{12} \text{ J}$ D) $3.6 \times 10^9 \text{ J}$

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☐ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection

star-portals.com/view/s

26



Q.28

Test 3 Work & Energy

Physics Unit Wise

Power can be defined as the product of:

- A) force and displacement
- B) force and time
- C) force and velocity
- D) force and mass

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

[Next](#)[Back](#)



Q.29

Test 3 Work & Energy

Physics Unit Wise

Work done will be maximum when angle between \vec{F} and \vec{d} is:

A) 120° B) 60° C) 90° D) 0°

STAR INSTITUTE LAHORE


[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Next

Back

 No internet connection star-portals.com/view/s

26



Q.30

Test 3 Work & Energy

Physics Unit Wise

The amount of work required to stop a moving object is equal to:

- A) the velocity of the object
- B) the kinetic energy of the object
- C) the mass of the object times its acceleration
- D) the mass of the object times its velocity

STAR INSTITUTE LAHORE

[Click Here if Image Doesn't Load](#)

Correct Answer:

☒ A ☐ B ☐ C ☐ D

Submit Quiz

Back

 No internet connection**Attempt Details****Date:** 09/22/2021 11:13:22

This is a Unitwise Test | Images will be shown in class during discussion.

Total Marks: 0/30**Skipped Questions Details**

1 ✕ Correct Answer: B

2 ✕ Correct Answer: D

3 ✕ Correct Answer: B

4 ✕ Correct Answer: C

5 ✕ Correct Answer: A

6 ✕ Correct Answer: A

7 ✕ Correct Answer: D

8 ✕ Correct Answer: C

9 ✕ Correct Answer: D

10 ✕ Correct Answer: B

11 ✕ Correct Answer: D

12 ✕ Correct Answer: D

13 ✕ Correct Answer: A

14 ✕ Correct Answer: C

15 ✕ Correct Answer: B

16 ✕ Correct Answer: C

17 ✕ Correct Answer: C

18 ✕ Correct Answer: A

 No internet connection

8 ✕ Correct Answer: C

9 ✕ Correct Answer: D

10 ✕ Correct Answer: B

11 ✕ Correct Answer: D

12 ✕ Correct Answer: D

13 ✕ Correct Answer: A

14 ✕ Correct Answer: C

15 ✕ Correct Answer: B

16 ✕ Correct Answer: C

17 ✕ Correct Answer: C

18 ✕ Correct Answer: A

19 ✕ Correct Answer: B

20 ✕ Correct Answer: A

21 ✕ Correct Answer: C

22 ✕ Correct Answer: C

23 ✕ Correct Answer: C

24 ✕ Correct Answer: B

25 ✕ Correct Answer: D

26 ✕ Correct Answer: D

27 ✕ Correct Answer: D

28 ✕ Correct Answer: C

29 ✕ Correct Answer: D

30 ✕ Correct Answer: B